

## ABSTRACT

A magnetic resonance imaging method comprising a step for applying one or more gradient magnetic field pulses continuously, a step for calculating a residual magnetic field being generated from a magnet by an gradient magnetic field pulse based on a residual magnetic field response function representing the relation between the strength of the gradient magnetic field pulse being applied and the strength of a residual magnetic field being generated, and a step for correcting the residual magnetic field thus calculated. The magnetic resonance imaging method is further provided with a step for updating the residual magnetic field response function with time depending on the application history of the gradient magnetic field pulses being applied continuously.